

Title (en)

Optical transmission device for the transmission of optical signals in wavelength division multiplexing on a plurality of adjacent optical carrier wavelengths

Title (de)

Optische Übertragungseinrichtung für die Übertragung optischer Signale im Wellenlängenmultiplex auf einer Vielzahl benachbarter optischer Trägerwellenlängen

Title (fr)

Dispositif de transmission optique pour la transmission de signaux optiques en multiplexage de longueur d'onde sur une multiplicité de porteuses optiques à longueurs d'onde adjacentes

Publication

**EP 0590379 B1 19970702 (DE)**

Application

**EP 93114514 A 19930909**

Priority

DE 4232877 A 19920930

Abstract (en)

[origin: EP0590379A1] 2.1 It is intended to specify an optical transmission device for the said transmission of optical signals, by means of which the power limit which is caused by non-linear effects can be shifted upwards with respect to the data throughput. 2.2 A doped fibre which acts in an optically amplifying manner is used for this purpose, into which pumping radiation can be coupled for pumping a concentration (which determines the level of optical amplification) of the dopant in the fibre having a profile over the length of the fibre such that a signal level of the optical signals which are coupled in the fibre remains constant in at least one transmission direction during its passage through the pumped fibre or at least has a drop in the signal level which is reduced in comparison with the unpumped fibre. 2.3 For use in the case of high-power trunk (long-distance) transmission paths, underwater cables (submarine cables). <IMAGE>

IPC 1-7

**H01S 3/06**; **H04B 10/16**

IPC 8 full level

**G02F 1/35** (2006.01); **G02F 2/00** (2006.01); **H01S 3/06** (2006.01); **H01S 3/067** (2006.01); **H01S 3/07** (2006.01); **H01S 3/10** (2006.01); **H04B 10/25** (2013.01); **H04B 10/29** (2013.01); **H04B 10/291** (2013.01); **H04B 10/293** (2013.01)

CPC (source: EP US)

**H01S 3/06754** (2013.01 - EP US); **H04B 10/2589** (2020.05 - EP US); **H04B 10/2912** (2013.01 - EP US); **H04B 10/2935** (2013.01 - EP US); **H01S 3/06745** (2013.01 - EP US); **H01S 3/06787** (2013.01 - EP US)

Cited by

GB2281463B

Designated contracting state (EPC)

DE FR GB NL

DOCDB simple family (publication)

**EP 0590379 A1 19940406**; **EP 0590379 B1 19970702**; DE 59306835 D1 19970807; JP H06222412 A 19940812; US 5392377 A 19950221

DOCDB simple family (application)

**EP 93114514 A 19930909**; DE 59306835 T 19930909; JP 26835493 A 19930929; US 12080993 A 19930915